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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/550,686

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Julia Hirschberg

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SPOONER, LAMONT M

ART UNIT

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2626

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/550,686

Applicant(s)

HIRSCHBERG ET AL.

Examiner

LAMONT M. SPOONER

Art Unit

2626

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/25/09.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,8-10,24 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8-10,24 and 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-144a or PTO-144b)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Introduction

1. This office action is in response to applicant's request for continued examination 3/25/09. Claims 1, 4, 5, 8-10, 24 and 27-31 are currently pending and have been examined.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/25/09 has been entered.

Response to Arguments

3. Applicant's arguments filed 2/25/09, with respect to the 35 USC 112 rejection have been fully considered but they are not persuasive.

In response to applicant's arguments regarding the 35 USC 112 rejection as noted above, the Examiner notes and still finds, despite applicant's reference to Douglas A. Reynolds and further arguments,

applicant claims “**tagging** each of the one or more voice mail messages **with** the respective identity and an **a matching score** of the respective determined identity of the caller for each respective voice mail message.”

The Examiner currently fails to locate the teaching of this claimed element anywhere in the original disclosure or in any combination of incorporated references. The Examiner notes, on p.7 lines 8-28 of applicant's specification, applicant discusses tagging the voice mail message with the callers identity if there is a match. The Examiner further notes in the above cited section, the matching may be determined by a threshold process. The Examiner advises the applicant to clearly point out where the newly added limitation is taught. If the applicant is confused with question with respect to the Examiner's position, the applicant is encouraged to initiate an interview for clarification.

In regard to applicant's arguments with respect to the objection to the specification, the amended specification is still not permitted, as the Examiner is unable to determine by the original disclosure the required information present in order to facilitate such an amendment. The original disclosure does not teach the elements as discussed in the objection to the specification, and the applicant is not permitted to insert these elements of

new matter in view of the Office Action or remarks, without having these elements within the disclosure as originally presented (see meticulous description of the objection to the specification below).

In regards to applicant's current arguments, 2/25/09 regarding 35 USC 103 (Epstein et al (6,327,343) in view of Kanevsky et al. (Kanevesky, US 6,219,407)), these arguments have been fully considered but they are not persuasive:

4. Applicant's arguments, see remarks, filed 2/25/09, with respect to the rejection(s) of claim(s) 1, 4-5, 9, 10, 24, 27-28 and 30-31 under 35 USC 103, Epstein et al (6,327,343) in view of Kanevsky et al. (Kanevesky, US 6,219,407)), with regard to applicant's new amended matter (i.e. adapting the previously created speaker model) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Epstein in view of Kanevsky and further in view of Sundberg et al. (Sundberg, US 5,960,392). The Examiner further notes, applicant argues, claim 24 is amended to included the similar limitations of claim 21, however the Examiner notes, the "modified"/"adapted" identity or speaker model is

not included in the independent claim 24, which thus does not have any new arguable subject matter.

The remaining arguments are based upon this premise, regarding claims 8 and 29, page 10, paragraphs 1 and 2 respectively, are not persuasive.

Applicant argues, "The Office Action rejects claims 8 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Epstein et al. in view of Kanevsky et al., and further in view of Murveit et al. (U.S. Patent No. 6,766,295) ("Murveit et al."). Applicants amend claim 8 to recite a similar limitation to that found in claim 1. The new limitation is not taught or suggested in Epstein et al., Kanevsky et al., or Murveit et al. Therefore, Applicants submit that claim 8 is patentable over the cited references."

However it is evident, that Epstein et al teach the claimed invention but does not explicitly teach receiving an identity of the unknown message caller from a voice mail subscriber, and if the . However, this feature is well known in the art as evidenced by Kanevsky et al who teaches (col. 5, lines 38-42, the subscriber enrolls the new caller, see also C.9.lines 29-35). Therefore, one having ordinary skill in the art at the time the invention was made would have found it obvious to modify Epstein voice mail message

for callers the enrollment of new callers as taught by Kanevsky because the system would enroll any new message from a new caller for subsequent processing, i.e. storing messages from the caller in a particular folder, etc (ibid, Kanevsky).

It is further noted that Epstein and Kanevsky do not explicitly teach, and if the received indicated identity matches a previously created speaker model, receiving further comprises adapting the previously created speaker model. However, the underlined feature is well known in the art as evidenced by Murveit, who teaches adapting a previously created speaker model (abstract, C.2 lines 39-60-his speaker unknown, tagged, and subsequent updating, adapting of the speaker model to improve the speaker recognition) in a first session with a speaker. Therefore, at the time of the invention, it would have been obvious to modify the combination of Kanevsky with Epstein's model with a modified model for a first encounter for the benefit of improving the speech recognition system for a speaker (abstract, Murveit) who's identity is to be determined.

It is the Examiner's position, that in the voice mail speaker recognition system of Epstein, which is able to create an index folder for an initially unknown speaker, after the speaker is identified, wherein Kanevsky further

explicitly speaks of a folder for the speaker being created, and thus the lacking element is the combination being able to adapt a speaker model, in the event that Epstein and Kanevsky do not initially recognize a speaker, which already has a stored model. The combination of Murveit, then allows a previously created speaker model to be updated. Thus, if Epstein's previously created model, with the newly attached identity is able to update his speaker model, the Examiner is unable to make a distinction between the claimed elements and the current analysis of the claim, as discussed above.

Specification

5. The amendment filed 8/6/08 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: **"Each voice mail message may be tagged with an indication of certainty of the identity of the caller for each respective voice mail message, regardless of whether a match is said to exist whether the identity is unknown."**

The Examiner notes applicant's arguments citing the previous office action and "inherency", however the objection to the specification regarding new matter is with regard to more than just the applicant's arguments, it is the combination of elements that are not found anywhere in the disclosure and are not inherent.

Furthermore, the newly added element of 8/6/08, "such as altering the specific matching score threshold, inspecting voice mail messages for tagged indications of certainty of identity, etc." and "or visual cues showing the tagged indication of the determined certainty such as a color scheme change or a transparency effect" is also objected to as new matter.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1, 4, 5, 8-10, 24, and 27-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described

in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. More specifically, applicant claims, in claim 1, 8, and 24 **"tagging** each of the one or more voice mail messages with the respective identity and **a matching score** of the respective determined identity of the caller **for each respective voice mail message.**" The Examiner fails to locate the teaching of this claimed element anywhere in the specification. The Examiner notes, on p.7 lines 8-28 of applicant's specification, applicant discusses tagging the voice mail message with the callers identity if there is a match. The Examiner further notes in the above cited section, the matching may be determined by a threshold process. The Examiner advises the applicant to clearly point out where the newly added limitation is taught. Dependent claims 4, 5, 9, 10, 27-31 are rejected as they do not remedy the deficiency of their respective parent claim 1 and claim 24.

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1, 4, 5, 9, 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 1, lines 17, 18, "if the received indicated identity matches a known identity, modifying the known identity based on the received indicated identity" is not found anywhere in the applicant's original disclosure. The Examiner notes in the specification, p. 9 lines 10 and 11, "the speech signals in the message may be used to modify an existing model." and no further teaching of modifying the known identity based on the received indicated identity. For purpose of examination and consistency with respect to claim 8, the Examiner has interpreted this limitation as "adapting the previously created speaker model." Applicant is advised to point out explicitly where this newly added limitation is taught. Dependent claims 4, 5, 9 and 10 are rejected as they do not remedy the deficiency of the parent claim 1.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 4, 5, 9, 10, 24, and 27, 28, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein et al (6,327,343) in view of Kanevsky et al. (Kanevesky, US 6,219,407) and further in view of Sundberg et al (Sundberg, US 5,960,392).

As per **claims 1 and 24**, Epstein et al teach a method for indexing voice mail messages, comprising:

"Receiving one or more voice mail messages from one or more callers" (col. 6, lines 50-55);

"Determining the identity of each of the one or more callers in each of the one or more voice mail messages (1) by comparing the speech signals from each of the one or more voice mail messages with one or more caller speaker models" (col. 7, lines 22-26) and (2) based on an analysis of the content of each of the one or more voice mail messages (C.7.lines 32-35-
"his extractions of the callers name" as the content of the message);

"tagging each of the one or more voice mail messages with the respective determined identity and a matching score of the respective determined identity of the caller for each respective voice mail message." (abstract, the system is able of tagging the identity of a caller, col. 5, lines 37-45, his identification tagger 30, col. 7 lines 14-28-his probabilistic speaker recognition module, connected to the identity tagger, C.5 lines 38-50, and C.7 lines 21-26, "An **identification (ID) tagger module 30**, operatively connected to the **speaker recognizer module 22**, is provided for **electronically tagging the identity of the caller to the caller's message** or conversation or tagging..." and "If the speaker is identified by matching the received voice data with previously stored voice model of such speaker..." The Examiner notes that it is explicitly inherent, without room for alternate interpretation, in a **speech recognition module** based on the comparison of models, and a matching computation, there is an inherent value that must be matched, and the matching/identification of such **is inherently and defined by a degree of certainty**, thus providing identity tagging based on a degree of certainty, matching score, of the voice mail message being tagged by the ID, based upon speech recognition and matching.); and

when the determined identity of the caller of a voice mail message cannot be determined to a threshold certainty (see above discussion of certainty with respect to matching and probability);

tagging that voice mail message as unknown" (col. 7, lines 55-61, if the identity of the caller ultimately cannot be identified, the user (voice mail subscriber) 12 may program the system through the programming interface 38 to process the call based on the unknown caller; and the system may be programmed to store the name and originating telephone number of every caller at col. 8, lines 15-17).

if the received indicated identity does not match any known identities (C.7 lines 39-41-his unable to identify caller), creating a storage folder for voice mail messages from the caller corresponding to the identity (C.7 lines 58, and 59-his caller to voice mail, wherein the voice mail is a created storage folder based on his identification process, see C.7 lines 14-55-which candidly teaches once the identity is received, in conjunction with C.13.lines 39-65-his tagging and folder creation for a user, provides a storage, indexing embodiment).

It is noted that Epstein et al teach the claimed invention but does not explicitly teach receiving an indicated identity of the unknown message

caller from a voice mail subscriber, and creating a storage folder for voice mail messages from the caller corresponding to the indicated received identity. However, this feature is well known in the art as evidenced by Kanevsky et al who teaches (col. 5, lines 38-42, the subscriber enrolls the new caller, see also C.9.lines 29-35). Therefore, one having ordinary skill in the art at the time the invention was made would have found it obvious to modify Epstein voice mail message for callers with the enrollment of new callers as taught by Kanevsky because the system would enroll any new message from a new caller for subsequent processing, i.e. storing messages from the caller in a particular folder, etc (ibid, Kanevsky).

Epstein in view of Kanevsky do not explicitly teach "if the received indicated identity matches a known identity, modifying the known identity based on the received indicated identity.

However, Sundberg teaches modifying the known identity based on the received indicated identity (C.4 lines 30-44-his new model units based on his known, received indicated identity with his initial speaker model, modify with the new model units, thereby adapting the previous speaker model/known identity, based on the received indicated identity by recognition model). Therefore, one having ordinary skill in the art at the

time the invention was made would have found it obvious to modify Kanevsky with Epstein's speaker recognition model, with Sundberg's adapted speaker recognition model, providing the benefit of keeping a speakers recognition model current in the event the speaker or system is subjected to changes, including physiology, behavior, aging (C.1 lines 14-19, Sundberg).

As per **claims 4 and 27**, Epstein, Kanevsky and Sundberg make obvious claim 1, Epstein further teaches wherein the one or more caller speaker models are created from one or more voice mail messages left by a same caller (C.5.lines 10-17-his voice data as the voice mail message).

As per **claims 5 and 28**, Epstein , Kanevsky and Sundberg make obvious claim 1, Epstein further teaches wherein the one or more speaker models are created using acoustic features extracted from the voice mail message, the acoustic features extracted using speaker recognition techniques (C.8.lines 36-56).

As per **claims 9 and 30**, Epstein a, Kanevsky and Sundberg make obvious claim 1, Epstein further teaches wherein the step of determining the identity of each of the one or more callers in each of the one or more voice mail messages includes the substep of:

using automatic number identification to assist in determining the caller's identity (C.5 lines 52-65).

As per **claims 10 and 31**, Epstein , Kanevsky and Sundberg make obvious claim 1, Epstein further teaches, wherein the step of determining the identity of each of the one or more callers includes the substep of:

using speech recognition techniques to extract caller identity information from the one or more voice mail messages (C.8.lines 36-55).

12. Claims 8 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein et al (6,327,343) in view of Kanevsky et al. (Kanevesky, US 6,219,407), and further in view of Murveit et al. (Murveit, US 6,766,295), and further in view of Sundberg (US 5,960,392).

As per **claim 8**, Epstein et al teach a method for indexing voice mail messages, comprising:

"Receiving one or more voice mail messages from one or more callers" (co1. 6, lines 50-55);

"Determining the identity of each of the one or more callers in each of the one or more voice mail messages (1) by comparing the speech signals from each of the one or more voice mail messages with one or more caller speaker models" (col. 7, lines 22-26) and (2) based on an analysis of the

content of each of the one or more voice mail messages (C.7.lines 32-35-
"his extractions of the callers name" as the content of the message);

"tagging each of the one or more voice mail messages with the
respective identity and a matching score of the respective determined
identity of the caller for each respective voice mal message." (abstract, the
system is able of tagging the identity I of a caller, col. 5, lines 37-45, his
identification tagger 30, col. 7 lines 14-28-his probabilistic speaker
recognition module, connected to the identity tagger); and

when the identify of the caller of a voice mail message cannot be
determined; tagging that voice mail message as unknown" (col. 7, lines 55-
61, if the identity of the caller ultimately cannot be identified, the user (voice
mail subscriber) 12 may program the system trough the programming
interface 38 to process the call based on the unknown caller; and the
system may be programmed to store the name and originating telephone
number of every caller at col. 8, lines 15-17)

receiving an indicated identity of the caller, wherein if the voice mail
message is tagged as unknown (C.7 lines 39-41-his unable to identify
caller), receiving further comprises creating a storage folder for voice mail
messages from the caller corresponding to the received caller identity (C.7

lines 58, and 59-his caller to voice mail, wherein the voice mail is a created storage folder based on his identification process, see C.7 lines 14-55- which candidly teaches once the identity is received, in conjunction with C.13.lines 39-65-his tagging and folder creation for a user, provides a storage, indexing embodiment).

It is noted that Epstein et al teach the claimed invention but does not explicitly teach receiving an identity of the unknown message caller from a voice mail subscriber, and if the . However, this feature is well known in the art as evidenced by Kanevsky et al who teaches (col. 5, lines 38-42, the subscriber enrolls the new caller, see also C.9.lines 29-35). Therefore, one having ordinary skill in the art at the time the invention was made would have found it obvious to modify Epstein voice mail message for callers the enrollment of new callers as taught by Kanevsky because the system would enroll any new message from a new caller for subsequent processing, i.e. storing messages from the caller in a particular folder, etc (ibid, Kanevsky).

It is further noted that Epstein and Kanevsky do not explicitly teach, and if the received indicated identity matches a previously created speaker model, receiving further comprises adapting the previously created speaker

model. However, the underlined feature is well known in the art as evidenced by Murveit, who teaches adapting a previously created speaker model (abstract) in a first session with a speaker. Therefore, at the time of the invention, it would have been obvious to modify the combination of Kanevsky with Epstein's model with a modified model for a first encounter for the benefit of improving the speech recognition system for a speaker (abstract) who's identity is to be determined.

As per **claim 29**, claim 29 sets forth limitations similar to claims 1 and 8 is completely within the scope of rejected claims 1, and 8, and is thus rejected for the same reasons and under the same rationale.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAMONT M. SPOONER whose telephone number is (571)272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571/272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/David R Hudspeth/
Supervisory Patent Examiner, Art Unit 2626

lms
6/3/09